FUJITSU

DATASHEET

ESPRIMO E7935 0-Watt

The world's first 0-Watt PC

Issue: December 2009

ESPRIMO E7935 0-Watt

The world's first 0 Watt PC, the ESPRIMO E7935, equipped with innovative technology from Fujitsu and Intel®, is a power-saving miracle meeting all business and space requirements. With a volume of less than 13 litres it can be positioned vertically or horizontally - ideal for every desk. Made of specially selected material and, in addition to the 0 Watt function, equipped with further power-save options, such as a switched monitor outlet and power save management, the ESPRIMO small form factor PC already meets today the legal requirements of tomorrow. Furthermore, this desktop PC, equipped with an up to 89% efficient power supply already today meets ENERGY STAR® 5.0 criteria. Don't make any compromises!

0-Watt PC

Cost savings by completely reducing off-mode losses

- Function (patent pending) for 0 Watt power consumption in off-mode/hibernating with simultaneous management in a time slot that can be optionally set

Environmentally compatible product

Your contribution to environmental protection for the continued existence of our planet

- Halogen-free mainboard, sophisticated product concept for the entire lifecycle

ENERGY STAR® 5.0

Low power consumption and costs with no loss in performance

- Power supply with up to 89% efficiency and a range of special components

System management

Simple system administration for complex IT infrastructures

- Intel® vPro™ technology

Quiet

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized fan concept

Green IT · POWER SAVE · HALOGEN FREE · QUIET RUNNING · EASY ACCESS CABINET · TWINLOAD · SWITCHED MONITOR OUTLET · FAMILY CONCEPT · MANAGEABILITY · KEYBOARD POWER ON

Components

Processor	Intel® Core™2 Quad processor Q9650 (4C/4T, 3.0 GHz, 12 MB, 1333 MHz)
	Intel® Core™2 Quad processor Q9550 (4C/4T, 2.83 GHz, 12 MB, 1333 MHz)
	Intel® Core™2 Quad processor Q9505 (4C/4T, 2.83 GHz, 6 MB, 1333 MHz)
	Intel® Core™2 Quad processor Q9400 (4C/4T, 2.66 GHz, 6 MB, 1333 MHz)
	Intel® Core™2 Quad processor Q8300 (4C/4T, 2.5 GHz, 4 MB, 1333 MHz)
	Intel® Core™2 Duo processor E8600 (2C/2T, 3.33 GHz, 6 MB, 1333 MHz)
	Intel® Core™2 Duo processor E8500 (2C/2T, 3.16 GHz, 6 MB, 1333 MHz)
	Intel® Core™2 Duo processor E8400 (2C/2T, 3.0 GHz, 6 MB, 1333 MHz)
	Intel® Core™2 Duo processor E7600 (2C/2T, 3.06 GHz, 3 MB, 1066 MHz)
	Intel® Core™2 Duo processor E7500 (2C/2T, 2.93 GHz, 3 MB, 1066 MHz)
	Intel® Core™2 Duo processor E7400 (2C/2T, 2.8 GHz, 3 MB, 1066 MHz)
	Intel® Pentium® processor E6300 (2C/2T, 2.8 GHz, 2 MB, 1066 MHz)
	Intel® Pentium® processor E5400 (2C/2T, 2.7 GHz, 2 MB, 800 MHz)
	Intel® Pentium® processor E5300 (2C/2T, 2.6 GHz, 2 MB, 800 MHz)
	Intel® Pentium® processor E5200 (2C/2T, 2.5 GHz, 2 MB, 800 MHz)
	Intel® Celeron® processor E3200 (2C/2T, 2.4 GHz, 1 MB, 800 MHz)
Memory modules	4 GB (1 module(s) 4 GB) DDR2, 800 MHz, PC2-6400
	2 GB (2 module(s) 1 GB) DDR2, 800 MHz, PC2-6400
	2 GB (1 module(s) 2 GB) DDR2, 800 MHz, PC2-6400
	1 GB (1 module(s) 1 GB) DDR2, 800 MHz, PC2-6400
Hard disk drives (internal)	SSD SATA, 128 GB, 2.5-inch
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
Hard disk notes	Supporting NCQ and 3 GBit
Graphics add on cards (optional)	Dual DVI Adapter
	DVI Adapter
	NVIDIA® Geforce® 9300GE display port low profile, 512 MB
	NVIDIA® Geforce® 9300GE low profile, 256 MB
	NVIDIA® Geforce® 9300GE low profile, 512 MB
	NVIDIA® Geforce® 9500GS low profile, 512 MB
	NVIDIA® Quadro NVS 290 low profile, 256 MB
Modular bay options	1.44 MB Floppy
	Blu-ray Disc Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, 3,5-Inch
Interface add on cards/components (optional)	
	Parallel Interface
	FireWire PCI-Card IEEE1394
	eSATA Interface
	Dual serial card PCI LP
Base unit	**ESPRIMO E7935 0-Watt**
Mainboard	
Mainboard type	D2828-A2x
Formfactor	proprietary
Chipset	Intel® Q45
Processor socket	LGA 775

Mainboard	
Processor quantity maximum	1
System bus (FSB / HT / QPI)	up to 1333 MHz
Memory slots	4 DIMM (DDR2)
Supported capacity RAM (max.)	16 GB
Memory frequency	800 MHz
Memory notes	Dual channel support. For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules).
LAN	10/100/1000 MBit/s Intel® 82567 LM
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	Internal speaker supports audio playback, High Definition audio
I/O controller on board	
Serial ATA total	4
thereof eSATA	2 (optional)
Controller functions	Serial ATA II NCQ and 3 GBit AHCI Raid 1/0
Interfaces	
Audio: line-in	1
Audio: line-out	1
DVI	optional
Ethernet (RJ-45)	1
Front audio: headphone	1
Front audio: microphone	1
Mouse / Keyboard (PS/2)	2
Parallel	optional (25pin with EPP and ECP)
Serial (RS-232)	2 (9pin, 16 byte FIFO, 16550 compatible)
USB front	2
USB internal	4
USB rear	6
USB 2.0 total	12
VGA	1
Input device / components	
	Optical USB tilt wheel mouse Optional: Optical USB/PS2 tilt wheel mouse
Drive bays	
Drive bays total	3
3.5-inch internal bays	1
3.5-inch external bays	1
5.25-inch external bays	1
Drive bay notes	optional external bay as internal 3,5”
Slots	
PCI-Express Gen2 x16	1 x (210 mm) low profile
PCI-Express x4 (mech. x8)	1 x (210 mm) low profile
PCI (32-bit / 33 MHz)	2 x (190 mm) low profile
Slots optional configuration	or 1x PCI Express x16 low profile (190mm) and via Riser 2 x PCI full heigh (174 / 210 mm)
Graphics on board	
Graphics brand name	Intel® GMA 4500
Shared video memory	up to 256 MB

Graphics on board	
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
Graphics notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 86% / 89% / 87%)
	0-Watt mode automatically
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Operating voltage range	90 - 264 V
Operating line frequency range	47 - 63 Hz
Max. output of power supply	250 W
Power factor correction/active power	active
Monitor outlet	Switched
Power consumption	
Power consumption note	see white paper Energy Consumption 0-Watt mode automatically
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=801bf51a-c3c0-44fc-874b-9a4116e47616
Heat dissipation	
Heat dissipation notes	see white paper Energy Consumption
Noise for standard configuration (HDD, ODD, FDD)	
Noise emission	According to ISO9296
Related Processors for noise	Intel® Core™2 Duo E8600
Noise Operation mode 1: ODD load (Blue angel requirement)	4.5 B / 30 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.6 B / 20 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.6 B / 20 dB(A)
Noise Operation mode 4: High load	3.7 B / 22 dB(A)
Noise Operation mode 5: Office applications	3.4 B / 18 dB(A)
Idle mode (Blue Angel requirement)	3.4 B / 18 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position
Dimensions / Weight / Environmental	
Dimension (W x D x H)	340 x 380 x 100 mm
Operating position	Vertical / horizontal (no feet needed)
Weight	approx. 10 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	15 - 35°C

Compliance	
Product	ESPRIMO E7935
Model	DT7-2828
Germany	Blauer Engel / Blue Angel in progress GS optional
Europe	CE Nordic Swan in progress
USA/Canada	FCC Class B UL cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx
Operating system	
Operating system optional preinstalled	Microsoft® Windows® 7 Home Premium Microsoft® Windows® 7 Professional Microsoft® Windows Vista® Home Basic Microsoft® Windows Vista® Home Premium Microsoft® Windows Vista® Business 32-bit Microsoft® Windows Vista® Business 64-bit TwinLoad Microsoft® Windows® XP Professional (DVD)
Operating system compatible	Linux
Operating system notes	All Windows Vista® and Windows® 7 versions are Office 2007 ready.
Additional Software	
Additional software (preinstalled)	Nero Essentials S (burning software)
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive)
Compatibility (references)	
	DMI 2.0 PC 2001 WMI 1.5 USB 2.0
Manageability	
Manageability features	ASF 2.0 (Alert Standard Format) DeskUpdate Driver management DeskView Migrate (optional) DeskView Control (optional) PXE 2.1 Boot code BootP Boot Code including Bootmanage Administrator Software (tested) Wake up from S5 (off mode) Intrusion switch (optional) iAMT 5.0
Manageability type	DeskView 10.x client management including:
DeskView features	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Advanced alerts (ASF implementation) Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
Manageability link	http://ts.fujitsu.com/manageability http://www.altiris.com/fujitsu

Security	
Physical security	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
System security	Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) - Infineon Control of all USB interfaces External USB ports can be disabled separately Boot protection for floppy disk / CD drive and write protection for floppy disk drive Control of external interfaces
User security	User and supervisor BIOS password SystemLock 2 BIOS SmartCard Security Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader

Serviceability	
	FlexySlot EasyFix EasyChange for HDD EasyChange for optical drives

Packaging information	
Packaging dimension	500x290x540 mm
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (g) EPS / PS	230 g
Material - Weight (g) PE	appr. 60 g
Packaging notes	printed user documentation is bleached in chlorine free process

Warranty Maintenance and Support Services - the perfect extension	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:
http://ts.fujitsu.com/aboutus
Take back and Recycling information:
http://ts.fujitsu.com/recycling

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded.
Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.
For further information see http://ts.fujitsu.com/terms_of_use.html
Copyright © Fujitsu Technology Solutions December 2009

Published by
Fujitsu Technology Solutions
http://ts.fujitsu.com